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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1, 4-6, 9-12, 14, 16, 19-21, 26, 29 and 30** are rejected under 35 U.S.C. 103(a) as being anticipated by Akira et al. (Japanese Patent Application Publication 2001-130090), hereinafter referenced as Akira further in view of Brenner et al. (United States Patent 6,206,593), hereinafter referenced as Brenner.
2. **Regarding claim 1**, Akira discloses a display with printer. In addition Akira discloses that the display device comprises:
  3. a flat panel display for displaying images from a computer, as disclosed in [0003];
  4. a printer, the printer including a print-head 9 for printing onto paper, as disclosed in [0008] and exhibited in figure 2;
  5. In addition Akira discloses a display device further including a curved paper guide 22 and 20, disposed when the device is in use, beneath the flat panel display such that the paper that has been printed is urged horizontally and then vertically as it exits the device, as disclosed in [0008] and exhibited in figure 2.

6. However, Akira fails to explicitly disclose a curved paper guide disposed beneath the flat panel display for guiding the printed sheets only horizontally to exit the device.

However it would have been obvious to one of ordinary skill in the art at the time of the invention to include such a modification to the invention of Akira, as taught by Brenner.

7. In a similar field of endeavor, Brenner discloses an information processing apparatus. In addition Brenner discloses a curved paper guide (beneath the display and leading to opening 156) disposed beneath the flat panel display for guiding the printed sheets horizontally to exit the device, as disclosed in column 7, lines 39-45 and exhibited in figure 7.

8. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include a curved paper guide disposed beneath the flat panel display for guiding the printed sheets horizontally to exit the device to the invention of Akira for the purpose of allowing the paper to stack neatly as it prints.

9. **Regarding claim 4**, Akira discloses everything claimed as applied above(see claim 1). In addition Akira discloses a display configured to receive print data to be printed and display data to be displayed from a computer system, as disclosed in [0004].

10. **Regarding claim 5**, Akira discloses everything claimed as applied above (see claim 3). In addition Akira discloses a display device wherein the display device includes a connection 34 configured to allow releasable operative connection of the computer system to the display device, for receiving print data and the display data from the computer system, as exhibited in figure 3.

11. **Regarding claim 6**, Akira discloses everything claimed as applied above (see claim 5). In addition Akira discloses a display device wherein the connection includes one socket for accepting at least one corresponding data cable 34 as disclosed in figure 3.

12. **Regarding claim 9**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device further including a paper feed mechanism for feeding paper to the print-head for printing, the print-head for printing, the print-head being arranged to print onto paper, as disclosed in [0008].

13. **Regarding claim 10**, Akira discloses everything claimed as applied above (see claim 8). In addition Akira discloses a display device wherein the paper feed mechanism is configured to position the paper substantially parallel in at least one direction with respect to a plane defined by the flat panel display, as disclosed in [0008] and exhibited in figure 2.

14. **Regarding claim 11**, Akira discloses everything claimed as applied above (see claim 8 or 9). In addition Akira discloses a display device wherein the paper feed mechanism is configured to accept a single sheet of paper at a time for printing, as disclosed in [0008] and exhibited in figure 2.

15. **Regarding claim 12**, Akira discloses everything claimed as applied above (see claim 8 or 9). In addition Akira discloses a display device wherein the paper feed mechanism includes a paper separator 8 for feeding a single sheet of paper to the print-head from a stack of sheets of paper, as disclosed in [0008] and exhibited in figure 2.

16. **Regarding claim 14**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device wherein the printer is an inkjet printer, as disclosed in [0008].

17. **Regarding claim 16**, Akira discloses everything claimed as applied above (see claim 1 or 14). In addition Akira discloses a display device wherein the printer is a page-width printer, as disclosed in [0004]-[0005] and exhibited in figure 1.

18. **Regarding claim 19**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device configured such that paper to be printed is fed manually into a paper path that directs the paper from a region adjacent the upper edge of the flat panel display, past the print-head for printing, then out of the device adjacent a lower edge of the flat panel display, as disclosed in [0008] and exhibited in figure 2.

19. **Regarding claim 21**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device wherein the flat panel display includes one of the following types, LCD or PDP. However Akira fails to explicitly disclose the display device wherein the flat panel display is an OLED or an FED, however at the time of the invention it would have been obvious to have the display be either an OLED display or an FED display for the purpose of offering a variety of display applications for the invention.

20. **Regarding claim 26**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses that the computer system is a personal computer, as disclosed in [0001].

21. **Regarding claim 29**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device comprising

22. a flat panel display 2 for displaying images from a computer, as disclosed in [0009].

23. a printer 3 including a page width print head 9 for printing onto print media, the print-head being disposed adjacent a lower portion of the display device, as disclosed in [0008] and exhibited in figure 2;

24. the device being configured such that, during printing, the paper being printed passes between the flat panel display and the print head or passes behind the flat panel display and the print head relative to the viewing position of the flat panel display, as disclosed in [0006] and [0020] and exhibited in figures 1 and 5.

25. **Regarding claim 30**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device comprising

26. a flat panel display 2 for displaying images from a computer, as disclosed in [0009].

27. a printer 3 including a page width print head 9 for printing onto print media, the print-head being disposed adjacent a lower portion of the display device, as disclosed in [0008] and exhibited in figure 2;

28. a multi-sheet paper holder 6, as disclosed in [0008] and exhibited in figure 2.

29. the paper feed mechanism includes a paper sheet separator 8 for feeding a single sheet of paper to the print-head from a stack of sheets of paper, as disclosed in [0008] and exhibited in figure 2.

2. **Claims 2-3, 7-8, 13, 15, 17-18, 22-23, 25, 28 and 31-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akira et al. (Japanese Patent Application Publication 2001-130090), hereinafter referenced as Akira.
3. **Regarding claim 2**, Akira discloses everything claimed as applied above (see claim 1). Akira fails to explicitly disclose the display device wherein the flat panel display forty centimeters on the diagonal, however at the time of the invention it would have been obvious to have a display greater than forty centimeters for the purpose of displaying an image with greater resolution.
4. **Regarding claim 3**, Akira discloses everything claimed as applied above (see claim 1). Akira fails to explicitly disclose the display device wherein at least two of the print-heads, the print-heads being disposed on either side of a path through which the paper is fed before printing, thereby enabling substantially simultaneous printing of both sides of a print media however at the time of the invention it would have been obvious to have the display include a printer to print on both sides of the print media for the purpose of double-sided printing.
5. **Regarding claim 7**, Akira discloses everything claimed as applied above (see claim 5). Akira fails to explicitly disclose a display device wherein the connection includes a wireless receiver for receiving the print data and/or the display data, however it was well known in the art at the time of the invention to include a wireless receiver on the device to receive print data for the purpose of printing from a different location.



6. **Regarding claim 8**, Akira discloses everything claimed as applied above (see claim 5). Akira fails to explicitly disclose a display device wherein the connection is a USB connection, however it was well known in the art at the time of the invention to include a USB connection, for the purpose of using a different protocol for printing faster.
7. **Regarding claim 13**, Akira discloses everything claimed as applied above (see claim 1). Akira fails to explicitly disclose a display device wherein the printer is a process color printer, however at the time of the invention it would have been obvious to include a color printer for the purpose of creating color images.
8. **Regarding claim 15**, Akira discloses everything claimed as applied above (see claim 13). Akira fails to explicitly disclose that the printer has more than 5,000 inkjet nozzles, however at the time of the invention it would have been obvious to have a printer with over 5,000 ink-jet nozzles to create a high quality image.
9. **Regarding claim 17**, Akira discloses everything claimed as applied above (see claim 1). Akira fails to explicitly disclose the display device wherein at least two of the print-heads, the print-heads being disposed on either side of a path through which the paper is fed before printing, thereby enabling substantially simultaneous printing of both sides of a sheet of paper, however at the time of the invention it would have been obvious to have the display include a printer to print on both sides of the paper for the purpose of double-sided printing.
10. **Regarding claim 18**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses that the display device is configured to

enable printing of standard A4 sized sheet of paper, as disclosed in [0008] and exhibited in figure 2. Akira fails to explicitly disclose the display device configured to enable printing of letter size sheets of paper, however at the time of the invention it would have been obvious to have the display device configured to enable printing of letter size sheets of paper for the purpose of printing letters more easily.

11. **Regarding claim 22**, Akira discloses everything claimed as applied above (see claim 1). However Akira fails to explicitly disclose the display device wherein the print head is configured to receive halftone print data, however it would have been obvious at the time of the invention to include this modification to the apparatus for the purpose of conserving ink.

12. **Regarding claim 23**, Akira discloses everything claimed as applied above (see claim 1). However Akira fails to explicitly disclose a half-toning unit for generating half-toned image data and supplying it to the print head for printing, however it would have been obvious at the time of the invention to include this modification to the apparatus for the purpose of conserving ink.

13. **Regarding claim 25**, Akira discloses everything claimed as applied above (see claim 1). However Akira fails to explicitly disclose a that the print head is configured to print image and text data, however it would have been obvious at the time of the invention to include this modification to the apparatus for the purpose of allowing the user to quickly print whatever is on the screen, including text and images.

14. **Regarding claim 28**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device comprising

15. a connection 34 configured to allow releasable operative connection of the computer system to the display device, for receiving print data and the display data from the computer system, as exhibited in figure 3;

16. a flat panel display 2 for displaying images from a computer, as disclosed in [0009].

17. a printer 3 including a page width print head for printing onto print media on the basis of print data as disclosed in [0008] and exhibited in figure 2;

18. However Akira fails to explicitly disclose a data connection hub configured to allow connection of at least one data receiving device to the printing and display device enabling the data receiving device to receive data from the computer, however it would have been obvious at the time of the invention to include this modification to the apparatus for the purpose of allowing multiple computers to use the display and print device more easily.

19. **Regarding claim 31**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device comprising

20. a flat panel display 2 for displaying images from a computer, as disclosed in [0009].

21. a printer 3 including a page width print head 9 for printing onto print media, as disclosed in [0009].

22. However Akira fails to explicitly disclose the display device with a printer wherein at least two of the print-heads, the print-heads being disposed on either side of a path through which the paper is fed before printing, thereby enabling substantially

simultaneous printing of both sides of a print media however at the time of the invention it would have been obvious to have the display include a printer to print on both sides of the print media for the purpose of double-sided printing.

23. **Regarding claim 32**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device being configured to receive documents to be printed from a computer system, as disclosed in [0001], the printing and display device including an interface being configured to:

24. receive, via the interface (word processing software), input from a user indicative of a print command, as disclosed in [0033]:

25. However Akira fails to explicitly disclose the display device which sends the commands

26. send, from the printing and display device to the computer system, a print request;

27. receive, from the computer system and in response to the print request a document to be printed and print the document.

28. however at the time of the invention it would have been obvious to include these commands in the code for the interface for the purpose of allowing the user to easily print the word processing document.

29. **Claim 24** is rejected under 35 U.S.C. 103(a) as being unpatentable over Akira et al. (Japanese Patent Application Publication 2001-130090), hereinafter referenced as Akira in view of Lee (U.S. Patent 5,752,049).

30. **Regarding claim 24**, Akira discloses everything claimed as applied above (see claim 1). However Akira fails to explicitly disclose a that the print head is configured to print photographic images, however it would have been obvious at the time of the invention to include this modification to the apparatus, as taught by Lee

31. In a similar field of endeavor Lee discloses an integrated computer and printer system and method for managing power thereof. In addition Lee discloses that the print head is configured to print photographic images, as disclosed in column 4, lines 2-5.

32. Therefore it would have been obvious to one of ordinary skill in the art to provide such a modification to the invention of Akira for the purpose of allowing the user to quickly print a photo on the screen.

33. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Akira et al. (Japanese Patent Application Publication 2001-130090), hereinafter referenced as Akira in view of Inoue et al. (U.S. Patent 6,120,127), hereinafter referenced as Inoue.

34. **Regarding claim 27**, Akira discloses everything claimed as applied above (see claim 1). In addition Akira discloses a display device comprising:

35. a flat panel display 2 for displaying images from a computer, as disclosed in [0009].

36. a stand for holding the flat panel display in at least one operative position, as disclosed in [0003]; and

37. a printer 3 including a print-head 9 for printing onto paper, as disclosed in [0008] and exhibited in figure 2;

38. However Akira fails to explicitly disclose a that the stand contains a receptacle for the at least one replaceable print-cartridge, however it would have been obvious at the time of the invention to include this modification to the apparatus, as taught by Inoue.

39. In a similar field of endeavor, Inoue discloses a recording apparatus with ink tank movable relative to recording head. In addition Inoue discloses that a stand 405 contains a receptacle 4107 for at least one replaceable print-cartridge 4111, as disclosed in and exhibited in figures 75 and 76A

40. Therefore it would have been obvious to one of ordinary skill in the art to provide such a modification to the invention of Akira for the purpose of allowing the user to quickly change out the print-cartridge when necessary.

### ***Response to Arguments***

12. Applicant's arguments filed 03/20/2008 have been fully considered but they are moot on the new grounds of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENDAN MCCOMMAS whose telephone number is (571)270-3575. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

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